

PATENT

App. Ser. No.: 10/618,410
Atty. Dkt. No. ROC820030184US1
PS Ref. No.: IBMK30164

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method for managing query execution in a data processing system, comprising:
 - providing at least one query execution schedule configured to schedule specific queries against a database in the data processing system;
 - receiving a query against the database; and
 - ~~managing execution of scheduling a time to execute~~ the received query on the basis of the at least one query execution schedule.
2. (Currently Amended) The method of claim 1, wherein ~~managing the execution of scheduling the time to execute~~ the received query comprises:
 - determining, whether the received query is a specific query; and
 - if so, scheduling execution of the received query using the query execution schedule.
3. (Original) The method of claim 1, wherein the at least one query execution schedule defines query eligibility criteria identifying the specific queries and a timeframe available for executing the specific queries.
4. (Original) The method of claim 3, wherein the query eligibility criteria comprise at least one of:
 - an estimated amount of resources required for execution of the specific queries;
 - an availability of data sources accessed by the specific queries;
 - a user submitting the specific queries; and
 - an application submitting the specific queries.
5. (Original) The method of claim 1, wherein the at least one query execution schedule is statically defined by a human operator.

PATENT

App. Ser. No.: 10/618,410
Atty. Dkt. No. ROC920030164US1
PS Ref. No.: IBMK30164

6. (Original) The method of claim 1, wherein the at least one query execution schedule is dynamically defined by the data processing system on the basis of monitored system parameters.
7. (Original) A method for scheduling execution of a query against a database in a data processing system, comprising:
 providing a plurality of query execution schedules, each query execution schedule defining query eligibility criteria identifying specific queries and a timeframe available for executing the specific queries;
 receiving a query against the database;
 determining, for the received query, a suitable query execution schedule on the basis of the query eligibility criteria of the plurality of query execution schedules; and
 scheduling execution of the received query against the database on the basis of the timeframe defined by the suitable query execution schedule.
8. (Original) The method of claim 7, wherein a plurality of suitable query execution schedules is determined and wherein the scheduling comprises:
 determining an intersection of the timeframes of the plurality of suitable query execution schedules; and
 scheduling execution of the received query against the database on the basis of the determined intersection.
9. (Original) The method of claim 7, wherein a plurality of suitable query execution schedules is determined and wherein the scheduling comprises:
 determining an intersection of the timeframes of the plurality of suitable query execution schedules;
 determining whether the intersection is empty or not; and
 if the intersection is not empty, scheduling execution of the received query against the database on the basis of the determined intersection; and
 if the intersection is empty, notifying a user.

PATENT

App. Ser. No.: 10/618,410
Atty. Dkt. No. ROC920030184US1
PS Ref. No.: IBMK30164

10. (Original) The method of claim 7, wherein the query eligibility criteria comprise at least one of:
- an estimated amount of resources required for execution of the specific queries;
 - an availability of data sources accessed by the specific queries;
 - a user submitting the specific queries; and
 - an application submitting the specific queries.
11. (Original) The method of claim 7, wherein the plurality of query execution schedules is statically defined by a human operator.
12. (Original) The method of claim 7, wherein at least one of the plurality of query execution schedules is dynamically defined by the data processing system on the basis of monitored system parameters.
13. (Original) The method of claim 12, wherein the monitored system parameters comprise at least one of:
- a peak query workload time period;
 - a light query workload time period; and
 - a time pattern indicating availability of the database.
14. (Original) The method of claim 13, wherein the database includes distributed data sources and wherein a separate time pattern is provided for each distributed data source, the separate time pattern indicating availability of a corresponding distributed data source.
15. (Currently Amended) A method of providing a query execution schedule for scheduling execution of specific queries against a database in a data processing system, comprising:
- defining query eligibility criteria identifying the specific queries to be scheduled by the query execution schedule;
 - defining a timeframe available for executing the specific queries; and

PATENT

App. Ser. No.: 10/618,410
Atty. Dkt. No. ROC920030164US1
PS Ref. No.: IBMK30164

associating the query eligibility criteria and the timeframe with the query execution schedule; and
scheduling times to execute the specific queries against the data processing system on the basis of the timeframe and the query execution schedule.

16. (Original) The method of claim 15, wherein the query eligibility criteria comprise at least one of:
- an estimated amount of resources required for execution of the specific queries;
 - an availability of data sources accessed by the specific queries;
 - a user submitting the specific queries; and
 - an application submitting the specific queries.
17. (Original) The method of claim 15, further comprising:
- monitoring system parameters of the data processing system; and
 - wherein the defining of the query eligibility criteria and the timeframe comprises:
 - dynamically defining the query eligibility criteria and the timeframe on the basis of the monitored system parameters.
18. (Original) The method of claim 17, wherein the monitored system parameters comprise at least one of:
- a peak query workload time period;
 - a light query workload time period; and
 - a time pattern indicating availability of the database.
19. (Original) The method of claim 18, wherein the database includes distributed data sources and wherein a separate time pattern is provided for each distributed data source, the separate time pattern indicating availability of a corresponding distributed data source.
20. (Currently Amended) A computer readable medium containing a program which, when executed, performs a process for managing query execution in a data processing system, the process comprising:

PATENT

App. Ser. No.: 10/818,410
Atty. Dkt. No. ROC920030164US1
PS Ref. No.: IBMK30164

receiving a query against a database in the data processing system;
retrieving at least one query execution schedule configured to schedule specific queries against the database; and
~~managing execution of scheduling a time to execute~~ the received query on the basis of the at least one query execution schedule.

21. (Currently Amended) The computer readable medium of claim 20, wherein ~~scheduling the time to execute managing the execution of~~ the received query comprises:

determining, whether the received query is a specific query; and
if so, scheduling execution of the received query using the query execution schedule.

22. (Original) The computer readable medium of claim 20, wherein the at least one query execution schedule defines query eligibility criteria identifying the specific queries and a timeframe available for executing the specific queries.

23. (Original) The computer readable medium of claim 22, wherein the query eligibility criteria comprise at least one of:

an estimated amount of resources required for execution of the specific queries;
an availability of data sources accessed by the specific queries;
a user submitting the specific queries; and
an application submitting the specific queries.

24. (Original) The computer readable medium of claim 20, wherein the at least one query execution schedule is statically defined by a human operator.

25. (Original) The computer readable medium of claim 20, wherein the at least one query execution schedule is dynamically defined by the data processing system on the basis of monitored system parameters.

PATENT

App. Ser. No.: 10/618,410
Atty. Dkt. No. ROC920030164US1
PS Ref. No.: IBMK30164

26. (Original) A computer readable medium containing a program which, when executed, performs a process for scheduling execution of a query against a database in a data processing system, the process comprising:

receiving a query against the database;

retrieving a plurality of query execution schedules, each query execution schedule defining query eligibility criteria identifying specific queries and a timeframe available for executing the specific queries;

determining, for the received query, a suitable query execution schedule on the basis of the query eligibility criteria of the plurality of query execution schedules; and

scheduling execution of the received query against the database on the basis of the timeframe defined by the suitable query execution schedule.

27. (Original) The computer readable medium of claim 26, wherein a plurality of suitable query execution schedules is determined and wherein the scheduling comprises:

determining an intersection of the timeframes of the plurality of suitable query execution schedules; and

scheduling execution of the received query against the database on the basis of the determined intersection.

28. (Original) The computer readable medium of claim 26, wherein a plurality of suitable query execution schedules is determined and wherein the scheduling comprises:

determining an intersection of the timeframes of the plurality of suitable query execution schedules;

determining whether the intersection is empty or not; and

if the intersection is not empty, scheduling execution of the received query against the database on the basis of the determined intersection; and

if the intersection is empty, notifying a user.

PATENT

App. Ser. No.: 10/618,410
Atty. Dkt. No. ROC920030164US1
PS Ref. No.: IBMK30164

29. (Original) The computer readable medium of claim 26, wherein the query eligibility criteria comprise at least one of:
- an estimated amount of resources required for execution of the specific queries;
 - an availability of data sources accessed by the specific queries;
 - a user submitting the specific queries; and
 - an application submitting the specific queries.
30. (Original) The computer readable medium of claim 26, wherein the plurality of query execution schedules is statically defined by a human operator.
31. (Original) The computer readable medium of claim 26, wherein at least one of the plurality of query execution schedules is dynamically defined by the data processing system on the basis of monitored system parameters.
32. (Original) The computer readable medium of claim 31, wherein the monitored system parameters comprise at least one of:
- a peak query workload time period;
 - a light query workload time period; and
 - a time pattern indicating availability of the database.
33. (Original) The computer readable medium of claim 32, wherein the database includes distributed data sources and wherein a separate time pattern is generated for each distributed data source, the separate time pattern indicating availability of a corresponding distributed data source.
34. (Currently Amended) A computer readable medium containing a program which, when executed, performs a process of providing a query execution schedule for scheduling execution of specific queries against a database in a data processing system, the process comprising:
- defining query eligibility criteria identifying the specific queries to be scheduled by the query execution schedule;
 - defining a timeframe available for executing the specific queries; [[and]]

PATENT

App. Ser. No.: 10/618,410
Atty. Dkt. No. ROC920030164US1
PS Ref. No.: IBMK30164

associating the query eligibility criteria and the timeframe with the query execution schedule; and
scheduling times to execute the specific queries against the data processing system on the basis of the timeframe and the query execution schedule.

35. (Original) The computer readable medium of claim 34, wherein the query eligibility criteria comprise at least one of:
- an estimated amount of resources required for execution of the specific queries;
 - an availability of data sources accessed by the specific queries;
 - a user submitting the specific queries; and
 - an application submitting the specific queries.
36. (Original) (Original) The computer readable medium of claim 34, further comprising:
- monitoring system parameters of the data processing system; and
 - wherein the defining of the query eligibility criteria and the timeframe comprises:
 - dynamically defining the query eligibility criteria and the timeframe on the basis of the monitored system parameters.
37. (Original) The computer readable medium of claim 36, wherein the monitored system parameters comprise at least one of:
- a peak query workload time period;
 - a light query workload time period; and
 - a time pattern indicating availability of the database.
38. (Original) The computer readable medium of claim 37, wherein the database includes distributed data sources and wherein a separate time pattern is provided for each distributed data source, the separate time pattern indicating availability of a corresponding distributed data source.
39. (Currently Amended) A data processing system comprising:
- a database; and

PATENT

App. Ser. No.: 10/618,410
Atty. Dkt. No. ROC920030164US1
PS Ref. No.: IBMK30164

a query manager residing in memory for managing query execution in the data processing system, the query manager being configured for:

receiving a query against the database;

retrieving at least one query execution schedule configured to schedule specific queries against the database; and

~~managing execution of~~ scheduling a time to execute the received query on the basis of the at least one query execution schedule.

40. (Original) A data processing system comprising:

a database; and

a query manager residing in memory for scheduling execution of a query against the database, the query manager being configured for:

receiving a query against the database;

retrieving a plurality of query execution schedules, each query execution schedule defining query eligibility criteria identifying specific queries and a timeframe available for executing the specific queries;

determining, for the received query, a suitable query execution schedule on the basis of the query eligibility criteria of the plurality of query execution schedules; and

scheduling execution of the received query against the database on the basis of the timeframe defined by the suitable query execution schedule.

41. (Currently Amended) A data processing system comprising:

a database; and

a query execution schedule manager residing in memory for providing a query execution schedule for scheduling execution of specific queries against the database, the query execution schedule manager being configured for:

defining query eligibility criteria identifying the specific queries to be scheduled by the query execution schedule;

defining a timeframe available for executing the specific queries; [[and]]

PATENT

App. Ser. No.: 10/618,410
Atty. Dkt. No. ROC920030164US1
PS Ref. No.: IBMK30164

associating the query eligibility criteria and the timeframe with the query execution schedule; and

scheduling times to execute the specific queries against the data processing system on the basis of the timeframe and the query execution schedule

42. (Currently Amended) A data structure for scheduling execution of specific queries against a database in a data processing system, the data structure residing in memory and comprising:

at least one query eligibility criterion field for identifying the specific queries to be scheduled; [[and]]

a timeframe field for identifying a period of time available for executing the specific queries; and

a scheduling field for scheduling times to execute the specific queries against the data processing system on the basis of the timeframe.